

REMARKS

Upon entry of this amendment, claims 1 and 12 will be amended, and claim 13 will be added. Accordingly, claims 1-7 and 9-13 will be pending, with claims 1 and 12 being independent claims.

Claims 1 and 12 have been amended to delete subject matter that was previously added, and that is presently being deleted in view of the new ground of rejection. Therefore, “wherein said slurry is stirred at 5 to 20 °C to froth said slurry” is being deleted from claims 1 and 12. Moreover, claim 1 has been amended to include “degreasing a green block having a predetermined shape formed from said gel to remove said water-soluble high molecular compound and said nonionic surface active agent from the gel by heating at 300 to 900°C”, which is supported by Applicant’s originally filed application, such as beginning at page 10, third line from the bottom. Still further, claim 1 has been amended to remove “drying” which is presently recited in dependent claim 13, and to recite “sintering said green block after degreasing”, which is supported by Applicant’s originally filed application, such as at page 11, lines 5-6.

Reconsideration and allowance of the application are respectfully requested.

Consideration Of Information Disclosure Statements

Applicant expresses appreciation for the inclusion with the Office Action of an initialed copy of the Form PTO-1449, whereby the Examiner’s consideration of the Derwent Abstract of JP 60-142847 is of record.

Claim Of Foreign Priority

Applicant also expresses appreciation for the acknowledgment of the claim of foreign priority as well as receipt of the certified copy of the priority application. **However, the Examiner is once again requested to confirm that the certified copy is in the parent application.**

Response To Withdrawal of Allowable Subject Matter

Applicant notes that the Office Action has withdrawn the indicated allowability of the subject matter of canceled claim 8, and has instituted new grounds of rejection. In response thereto, Applicant has amended the claims including the deletion from the independent claims of subject matter that the Examiner had previously indicated to be allowable.

For the reasons set forth herein, Applicant submits that the pending claims are allowable over the prior art of record, whereby the rejections of record should be withdrawn, and the application should be allowed.

Response To Art Based Rejections

(a) Claims 1-2, 4, 7, 9 and 11 [and apparently claim 12] are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-40782 (JP '782) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension.

The rejection contends that JP'782 discloses a method of making porous ceramic bodies, but does not disclose the temperature at which stirring occurs in order to foam a slurry. In an attempt to make up for this deficiency, the rejection asserts, relying on the secondary references, that it would be obvious to a person of ordinary skill in the art at the time the invention was

made, recognizing that temperature is a result effective variable would have conducted routine experimentation to determine the optimum temperature range that would provide sufficient bubble formation.

However, whether or not one having ordinary skill in the art at the time of Applicant's invention would have performed routine experimentation as asserted in the rejection, claim 1 presently includes, amongst other features recited therein, degreasing a green block having a predetermined shape formed from said gel to remove said water-soluble high molecular compound and said nonionic surface active agent from the gel by heating at 300 to 900°C. None of the documents utilized in the rejection discloses such a feature, and therefore any combination of the documents, even if there was any reason to combine their disclosures would not arrive at Applicant's claimed subject matter.

Applicant notes that claim 12 is not included in the statement of the rejection, but the rejection does reference claim 12 in the body of the rejection. Therefore, if claim 12 is intended to be included in this rejection, and the rejection is maintained or modified, the Examiner is requested to clearly state the basis for any rejection.

In the rejection, the Examiner refers to the bridging pages 5 and 6 of JP '782 with reference being made apparently to the fatty acid alkanolamide recited in claim 4, and asserting that it encompasses the claimed oxide recited in claim 12. However, claim 12 recites that the nonionic surface active agent is *N,N*-dimethyldodecylamine oxide.

Although JP'782 describes various kinds of nonionic surfactants as the foaming agent in the paragraph bridging pages 5-6 of English translation of JP'782, JP'782 fails to specifically disclose *N,N*-dimethyldodecylamine oxide. In this regard, the Examiner's attention is directed to Applicant's specification at page 4, lines 15-16, and page 7, lines 20-22, wherein it is disclosed

that a nonionic surface active agent free of a metal ion and sulfate group, and N,N -dimethyldodecylamine oxide (which is free of a metal ion and a sulfate group) is preferable from the viewpoint of frothing properties in the presence of hydroxyapatite. JP '782 fails to disclose N,N -dimethyldodecylamine oxide or any expected advantage as disclosed by Applicant.

Therefore, for at least the reasons set forth above, the rejection should be withdrawn.

(b) Claims 1, 3, 4, 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imura(GB 2348872) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension, or alternatively Imura (US 6,340,648) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension.

The Examiner states that Imura discloses a method of making a calcium phosphate porous sintered body as substitute for bone or tooth material, but does not disclose the temperature at which stirring occurs in order to foam the slurry. In an attempt to make up for this deficiency, the rejection asserts, relying on the secondary references, that it would be obvious to a person of ordinary skill in the art at the time the invention was made, recognizing that temperature is a result effective variable would have conducted routine experimentation to determine the optimum temperature range that would provide sufficient bubble formation.

However, whether or not one having ordinary skill in the art at the time of Applicant's invention would have performed routine experimentation as asserted in the rejection, claim 1 presently includes, amongst other features recited therein, degreasing a green block having a predetermined shape formed from said gel to remove said water-soluble high molecular compound and said nonionic surface active agent from the gel by heating at 300 to 900°C. None of the documents utilized in the rejection discloses such a feature, and therefore any combination

of the documents, even if there were any reason to combine their disclosures would not arrive at Applicant's claimed subject matter.

Accordingly, this ground of rejection should be withdrawn.

(c) Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imura (GB 2348872) or (US6,340,648) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension, and in further view of JP 3-131580 (JP'580); or JP 63-40782 (JP'782) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension, and in further view of JP 3-131580 (JP'580)

The Examiner notes that GB '872 and US '648 to Imura and JP'782 are silent with respect to disclosing the claimed % weight of the foaming agent (surface active agent), thickening agent (high molecular compound), and ceramic. However, the rejection contends that JP'580 discloses the claimed % weight.

In response, Applicant submits that, whether or not it would have been within the skill of one having ordinary skill in the art to combine the documents in the manner set forth in the Office Action, the presently claimed subject matter would not be arrived at at least for the reasons previously noted above. In this regard, claims 5 and 6 are patentable at least for the reasons set forth with respect to independent claim 1. Moreover, these claims further patentably recite the subject matter included in these claims.

The Examiner asserts that claim 5 does not specify if the parts by weight is relative to the weight of the slurry or the supplied ceramic. However, Applicant notes that claim 5 recites, "The method for producing a porous sintered body according to claim 1, wherein 1 to 10 part by weight of said water-soluble high molecular compound and 1 to 10 part by weight of said nonionic surface active agent are used with 100 parts by weight of said calcium phosphate-based

ceramic powder.” Accordingly, it is clear that the parts by weight in claim 5 is relative to the weight of the supplied ceramic.

Also, claim 6 calls for “The method for producing a porous sintered body according to claim 1, wherein a weight ratio of the total of said calcium phosphate-based ceramic powder, said water-soluble high molecular compound and said nonionic surface active agent is 20 to 50 weight % based on 100 weight % of said slurry.” Accordingly, it is clear that the weight % in claim 6 is relative to the weight of the weight of the slurry.

Accordingly, the rejection of claims 5 and 6 should be withdrawn.

(d) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imura (GB 2348872) or (US 6,340,648) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension, and in further view of WO 98/15505 (WO’505); or JP 63-40782 (JP’782) in view of Ask a Scientist: Temperature and Surface Tension or article titled Surface Tension, and in further view of WO 98/1 5505 (WO’505).

The rejection asserts that GB ‘872 and US ‘648 to Imura and JP’782 are silent disclosing the claimed step of passing gas through the slurry of ceramics, foaming agent and thickener to froth the desired froth. However, the rejection contends that WO’505 discloses a method of stirring the claimed slurry and introducing air to provide froth and subsequently form artificial body parts, bone.

In response, Applicant submits that, whether or not it would have been within the skill of one having ordinary skill in the art to combine the documents in the manner set forth in the Office Action, the presently claimed subject matter would not be arrived at at least for the reasons previously noted above. In this regard, claim 10 is patentable at least for the reasons set

forth with respect to independent claim 1. Moreover, this claim further patentably recites the subject matter included in these claims.

Accordingly, this rejection should be withdrawn.

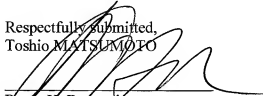
CONCLUSION

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections of record, and allow each of the pending claims.

Applicants therefore respectfully request that an early indication of allowance of the application be indicated by the mailing of the Notices of Allowance and Allowability.

Should the Examiner have any questions regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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